

REMARKS

I. Status of Claims

Claims 1-9 are pending in this application, the independent claims being claims 1 and 9.

II. Summary of The Official Action

In the Official Action, claims 1, 4, 5 and 7 were rejected under 35 U.S.C. §103(a), as unpatentable over U.S. Patent No. 6,827,641 (Yoshida) in view of U.S. Patent No. 2,735,249 (Martin), and claims 2 and 3 were rejected under 35 U.S.C. §103(a), as unpatentable over the Yoshida '641 patent and the Martin '249 patent, further in view of U.S. Patent No. 2,763,105 (Feeley).

Reconsideration and withdrawal of the rejections respectfully are requested in view of the following remarks.

III. Allowable Subject Matter

Initially, Applicants gratefully acknowledge the Examiner's renewed indication that the application contains allowable subject matter, that claim 9 is allowed, and that claim 6 is allowable over the prior art.

IV. Response to Outstanding Rejections

The rejections of claims 1-5, 7 and 8 over the cited art respectfully are traversed.

A. Independent Claim 1

The present invention relates to a novel grinding wheel. In one aspect, as recited in independent claim 1, the grinding wheel comprises: an annular core body having a porous structure which includes a multiplicity of aggregate particles and a resin bond that holds the aggregate particles together; an abrasive layer which is disposed radially outwardly of the annular core body and which includes a multiplicity of abrasive grains and a vitrified bond

that holds the abrasive grains together; and an impermeable coating which is formed of a synthetic resin, and which covers a surface of the annular core body.

In this aspect, the annular core body has a porous structure which includes a multiplicity of aggregate particles and a resin bond that holds the aggregate particles together, and an impermeable coating which is formed of a synthetic resin, and which covers a surface of the annular core body. As discussed in greater detail in the present application, this aspect of the present invention provides a significant improvement over prior art annular core bodies having a porous structure, in that the impermeable synthetic resin coating prevents infiltration of, e.g., cutting fluid or other moisture, into the porous core structure, which infiltration can cause a change in volume of the core body, resulting in cracks in the abrasive layer. (See paragraphs [0023] and [0025]).

B. Prior Art Distinguished

Applicants submit that the prior art fails to anticipate the claimed invention. Moreover, Applicants submit that there are differences between the subject matter sought to be patented and the prior art, such that the subject matter taken as a whole would not have been obvious to one of ordinary skill in the art at the time the invention was made.

The Yoshida '641 patent is not prior art against the rejected claims. The present application was filed in the United States on September 15, 2003, and claims priority based on Japanese Patent Application No. 2002-310182 filed October 24, 2002. The Yoshida '641 patent issued December 7, 2004 based on an application filed in the United States on March 3, 2003. Accordingly, the Yoshida '641 patent is prior art only under 35 U.S.C. 102(e). At the time the claimed invention was made, the inventors were subject to obligation to assign the invention to Noritake Co. Ltd.; a copy of the Assignment of the claimed invention to Noritake Co. Ltd. is recorded at Reel No. 014502, Frame No. 0005 (recorded September 15,

2003). The Yoshida '641 patent is commonly assigned to Noritake Co. Ltd. Accordingly, the Yoshida '641 is removed as prior art against the claimed invention under 35 U.S.C. 103(c).

The Martin '249 patent relates to a cold grinding machine, and was cited for its alleged disclosure of a porous grinding wheel tool with at least some of its surfaces coated with an impervious layer to prevent coolant waste. Without conceding the propriety of the Examiner's characterizations, Applicants submit that the Martin '249 patent fails to disclose or suggest at least the above-discussed combination of features of the claimed invention.

The Feeley '105 patent relates to a burnishing wheel, and discloses a burnishing wheel comprising a plurality of layers of glass fiber fabric (such as, for example, woven glass cloth), each impregnated with a thermosettable resinous binder. However, Applicants submit that the Feeley '105 patent fails to disclose or suggest at least the above-described combination of features of the claimed invention. Nor is the Feeley '105 patent believed to add anything to the Martin '249 patent that would make obvious the claimed invention.

For the above reasons, Applicants submit that independent claim 1 is allowable over the cited art.

Claims 2-8 depend from claim 1 and are believed allowable for the same reasons. Moreover, each of these dependent claims recites additional features in combination with base claim 1, and is believed allowable in its own right. Independent consideration of the dependent claims respectfully is requested.

V. Entry under 37 C.F.R. §1.116

Applicants respectfully request that the present Request be entered under 37 C.F.R. §1.116. Applicants submit that the present remarks reduce the issues and place the application in condition for allowance. The remarks were necessitated by the Office Action.

VI. Conclusion

Applicants believe the present Request for Reconsideration is responsive to each of the points raised by the Examiner in the Office Action, and respectfully submit that this application is in condition for allowance. Favorable consideration of the claims and prompt allowance of the present application earnestly are solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,

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